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ABSTRACT

This paper contends that the state of California is not currently fulfilling its obligation to facilitate the preparation of sufficient numbers of able school administrators. The first section addresses administrator supply and demand. The number of individuals holding administrative services credentials (ASC) far outnumbers available administrative positions because of the low costs of training, the high payoff in lifetime earning (relative to teaching), and the lack of rigorous admission requirements to administrator training programs in schools of education. The second major section accordingly addresses administrator preparation. Admission standards are evaluated, along with administrative services credential training, and a comparison is drawn between preparation of business and school leaders. Finally, institutional costs are assessed. Three major conclusions are offered: (1) there is an oversupply of trained administrators; (2) from the state's perspective, this oversupply wastes money; and (3) ASC training has been inappropriate for many of the actual job requirements of school administrators. The paper concludes with nine recommendations for policy change, which include making ASC programs more academically rigorous, licensing school administrators individually, and discontinuing some publicly supported training institutions. Two appendixes are included: (1) estimating supply and demand for administrators and (2) estimating rates of return on investment in ASC training. (TE)

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# Preparing California School Leaders: An Analysis of Supply, Demand, and Training

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November 1984

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## EXECUTIVE SUMMARY

California currently has no shortage of individuals legally licensed to serve as public school administrators. Indeed, a substantial surplus presently exists of minimally qualified administrative personnel. Moreover, given present turnover estimates, there will not be any shortfall in the immediate future, between now and 1990. Rather than quantity, the problem is quality.

Relative to remaining a classroom teacher, the lifetime earning payoff for becoming an educational administrator in California is high. Furthermore, an individual's costs for obtaining administrator training are low. Consequently, many more individuals may be motivated to seek administrative credentials than, in fact, have any reasonable probability of being employed. Administrators are trained in schools of education. The budgets of these institutions are heavily influenced by enrollments. Thus, there is often little incentive to impose rigorous admission requirements or to cull the inept once admitted. Entry level magnets for adminstrators are strong and the screens utilized by many academic preparation programs are weak. Moreover, the knowledge and skills needed to become an effective educational leader and school manager are generally not those provided by current Administrative Service Credential programs.

The result is that the leadership talent generally available to school districts is often low, and current costs to the state may be higher than necessary. These conclusions lead to the following recommendations:

- Raise admission standards for Administrative Service Credential (ASC) programs
- Urge ASC programs to be more academically rigorous
- Either require ASC students to pay tuition
  or
  phase out some publicly supported training institutions
- License school administrators individually, not their preparation programs
- Annually collect and publish job placement data for each ASC training institution
- Monitor and publish statistics regarding proportions of women obtaining entry level administrative positions
- Continue implementation of the new two-tier ASC programs
- Fund a California Academy for Leadership School Management.

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## INTRODUCTION

Education is riding a wave of increased public interest. Policy makers have coupled this renewed zeal for schools with an intense demand for increased educational rigor. In this quest for greater productivity, the importance of school administration is too often neglected. Yet, effective leadership is an essential ingredient for a successful school program.

This paper provides both information and food for thought. We contend that the state is not currently fulfilling its obligation to facilitate the preparation of sufficient numbers of able school administrators. We will examine three areas:

1. Numbers - Are there too many school administrators? Too few? Just what is the supply and demand balance?

2. Who are they? - Who is preparing to go into school administration? Why would someone want to be a school administrator?

3. Preparation - What is the state of the art in preparing people to go into school administration? How close is the match between the skills required to manage schools and the knowledge offered in college and university programs that prepare California school administrators?

Finally, we will provide recommendations for change. We begin with the issue of numbers.

## II. Administrator Supply and Demand

### A. Overview

The number of individuals holding Administrative Services Credentials (ASC) far outnumbers available administrative positions, and colleges and universities are granting more ASCs every year.

Approximately 16,353 administrators are currently employed in California's public school systems, kindergarten through grade twelve. Community colleges employ an additional 2,170. Non-public schools are estimated to employ 1,642 administrators. Where are these people and what are they doing? This paper concentrates on K-12 public school administrators, the overwhelming group in terms of numbers. Table I and Figure I provide breakdowns of the distribution of public school administrators currently employed in California.

Defining assistant principal, program/subject area administrator, and sixty percent of the principal positions (since principal is not always an entry level job) as entry level

positions, it can be deduced from Table I that in 1982-83 there were approximately 10,400 entry level positions for school administrators. Approximately thirty-five hundred new ASCs were granted each year from 1979 through 1982. That is, almost 14,000 administrative credentials were granted over a 4 year period for a job category that includes only 16,000 positions overall and for which, as shall be seen later, there currently is no indication of a high turnover rate. In other words, the current output of school administrator training programs could completely restock school administrators in California every 5 years! Entry level positions alone could be restocked every 3 years. Clearly, supply far exceeds demand.

How many administrators leave the profession each year? Curiously, this information is not easily available. Neither the State Teachers Retirement System (STRS), the California Basic Education Data System (CBEDS), nor the Association of California School Administrators (ACSA) has these data.

This situation exists despite a strong 1977 recommendation from the Legislative Analyst's Office that, "the Department of Education collect and report to the Legislature statistics regarding turnover rates for public school administrators, together with reasons for turnover." [1]

In order to estimate the turnover rate in California's school administrative ranks, baseline information about current distributions must be examined. Table II and Figure II describe the age distribution for California school administrators in 1982-1983.

Let us look ahead for the next five years. How many administrative openings can we anticipate will exist five years from now?

Between 1985 and 1990 the number of 5 to 19 year olds in California is expected to increase from 5,334,600 to 5,736,400 [2] or 7 percent. It can be estimated that the total number of entry level administrative positions will increase by the same proportion, although the distribution may shift. Elementary enrollment can be expected to grow while secondary enrollment will dip slightly.

Extrapolating the data in Table II and Figure II ahead by five years reveals that 17.9 percent of administrators will be age 60 or over. Since the average age of retirement has been 61, we can estimate that approximately 18 percent of current administrators are likely to retire during the next five years. These estimates of school enrollment increase and administrator retirement imply openings for 3,150 administrators during this time. If present credentialing trends continue, California will produce five times this need. This does not take into account individuals hired from outside the state or other (non-retirement) attrition. Only one individual in five obtaining an Administrative Service Credential can anticipate being employed

as a school manager.

Perhaps our estimates are too restrictive. Two independent researchers conducted a survey of placement offices in institutions of higher education with graduate programs in education administration. Their methods (See Appendix I) suggest that there will be 6300 administration openings between 1985 and 1989. By these more generous calculations, California will produce two-and-a-half to three times the number of school administrators the public schools need. In summary we estimate 3,150 to 6,300 administrative openings between 1985 and 1989. During the same period we project that 16,000 new preliminary ASC credentials will be earned, implying an excess of supply over demand of 9,700 to 12,850 individuals.

## B. Why the Tilt Toward Supply?

If the supply of administrators is so much greater than the demand, if the chances of securing an administrative position are so slim, why do so many people enter and complete ASC programs? At least part of the answer is that in California, the economic investment in preparing to become a public school administrator offers a high rate of return. Costs to the individual are low, and, if one succeeds in obtaining even an entry level position, the payoff is high. As a consequence, many individuals seek training and join the job queue.

## C. Financial Incentives

Most enrollees in California ASC programs are teachers. This is not surprising. California law requires that a person have three years of classroom experience to be eligible for admission to an ASC program. What incentives exist for teachers to choose to enter adminstrator training?

Salary advantages often accrue even if the teacher never secures an administrative position. Teachers advance on their salary schedules in two ways: (1) by gaining more years of classroom experience, and (2) by taking graduate level courses and thus earning additional college units. Academic course credits earned in ASC courses may boost a teacher to a higher paying salary classification. Graduate courses taken in administration, therefore, often result in a higher annual salary even if the teacher never becomes an administrator.

Sometimes financial realities alone persuade teachers to seek administrative jobs. Teachers, on a statewide average, reach the top of their salary schedule in twelve years. Monetarily, there is nowhere else to go except administration. (Of course, despite such economic disincentives, many able people make the conscious choice to remain classroom teachers.)

If a person catches the administrative "brass ring", the ASC training investment pays a handsome financial return. The

lifetime earning increment of a school principal is 30% higher than that of a teacher. For those few people who become school superintendents, lifetime professional earning is 60% greater than if they had stayed in the classroom. (For a more complete analysis of how earning increases are calculated, see Appendix 2.)

On the other hand, public school administrators' salaries tend to be lower than salaries for private sector managers. For example, although the average salary for California school administrators in 1983 was $35,666,[3] average annual salary for chief executive officers of small West Coast companies (annual sales between $1.9 and $4.6 million) was $68,000.[4] Other evidence also indicates that school administrators receive significantly lower compensation than private sector managers with similar numbers of employees to be supervised and budgets to be managed. Nevertheless, for teachers who plan on staying within education, a career in administration offers the only current opportunity to increase lifetime earnings.

Clearly, then, for many individuals, it is worth taking the chance and investing in an ASC program.

## D. Non-financial Benefits

Administrators enjoy many non-pecuniary benefits that do not accrue to teachers. Unlike financial benefits, which might be realized even if one does not secure an administrative position, the non-financial advantages are limited to those people who actually become administrators. The lure of the following seven incentives is often enough to induce people with minimal chances for jobs to seek administrative training. Beside monetary compensation, school administrators enjoy seven other benefits not available to teachers:

- more geographic mobility
- more flexible work schedules
- greater work variety
- higher status
- more diversified career options
- increased influence on policy directions
- increased interactions with adults

### (1) More Geographic Mobility

An educational administrator seldom loses money if he or she moves to a different school district. A teacher does. Few districts will give newly hired teachers more than 6 years of salary credit for prior teaching experience. As a consequence, even if jobs are available, teachers with more than 6 years of

experience suffer significant loss of income in moving from district to district. Administrators, on the other hand, have access to a far more fluid job market in which moves from rural to suburban or urban districts can be accomplished with little financial loss.

(2) More Flexible Work Schedules

Teachers typically work within rigid time constraints. Classes begin and end at fixed times. The teacher's daily work life is controlled by the inexorable ringing of bells. Individual teachers have little influence on establishing schedules, and once schedules are set, teachers must abide by them. In contrast, school administrators have greater flexibility in establishing and adhering to their work schedules. A principal can return fifteen minutes late from lunch or leave the building to attend a meeting. Administrators often establish work schedules; they are seldom imposed on him or her.

(3) Greater Work Variety

The work of school administrators generally contains greater variety than that of teachers. There is relatively little variation in the day to day work of teachers. The same students show up in the classroom each day and although the content of the daily instruction may vary, the same basic set of strategies are used again and again. For many site and district level administrators, one day seldom resembles another.

(4) Higher Status

Status--the way society views one's role or the job one does--is directly related to job satisfaction. When society looks with favor and respect on an occupation, the people in those jobs tends to feel good about what they do. Although the data are old (1953 and 1964), National Opinion Research Center studies [5], indicate that the social position of principals and superintendents is higher than that of teachers. Other professionals such as lawyers, scientists, and accountants can increase their status without entering managment. Society's view of teachers seems to be on the upswing. For the present, however, teachers must leave the classroom to see increased performance, training, and effort converted to status gains.

(5) More Diversified Career Options

A teacher who chooses to remain in the classroom has limited

career options. Indeed, a teacher may look forward to spending his or her fortieth year of teaching right beside a first year teacher, both individuals performing essentially the same tasks. Administrators, however, have many opportunities to move along on a greater variety of career paths. An assistant principal may become a principal and then an administrator at a central school district office, or a program coordinator may become a staff development manager and then assistant superintendent in charge of curriculum. An administrator, then, has many more career possibilities.

(6) Increased Influence on Policy Directions

Teachers are influential within their own classrooms but, as individuals, relatively powerless beyond. Teachers have power as members of their unions but often find it a constant struggle to exert significant influence over day-to-day policy decisions at their schools. Most schools and school districts operate as bureaucratic systems in which school managers exert greater authority over the development and implementation of policy than do teachers.

(7) Increased Interaction with Adults

It may seem odd to list "increased interaction with adults" as a job benefit--odd, that is, unless you have had the experience of a day, a week, or a year with thirty five-year-olds or 150 adolescents. Then, interaction with adults is, indeed, a job advantage. Teachers perform their professional duties away from other adults. Unlike almost all other professionals, teachers seldom work in consort with other adults. Engineers, social workers, lawyers, physicians, architects, and managers all spend significant portions of their working time either delivering services directly to adults or working cooperatively with other adults. In contrast, teachers spend year after year in isolation within a classroom tending to shifting groups of young people. As Lortie [7] has documented, this isolation contributes to many of the problems currently confronting the teaching profession such as slow implementation of innovative teaching techniques and poor client relations. Although some teachers thrive on the autonomy that is concomitant with this isolation from adult contact, many simply experience decreased job satisfaction. For many teachers the frequent opportunity to work with adults as a school administrator has considerable appeal.

Of course teachers entering administration also face several disincentives. While public school teachers enjoy the job security created by tenure laws, public school administrators serve at the pleasure of the Superintendent and may be returned to the classroom at any time. Furthermore, administrators usually

interact with a much larger segment of the public than do teachers. Listening to parent complaints and concerns day after day can be very stressful. Finally, administrators work in "fishbowls," their activities monitored and judged continuously by school board members, other administrators, parents, and students. In any case, the large numbers of teachers entering ASC training each year attest to the appeal of school administration.

E. Rate of Return on Investment in ASC Training.

Not only do significant economic and non-economic advantages accrue to people who choose to become administrators and successfully achieve those jobs, but also the costs involved--a teacher's investment in time and money--in training for an administrative credential are relatively minimal.

Teachers enrolled in administrator training programs incur four types of direct costs: tuition/fees, books, supplies, and transportation. A student at a California State University (CSU) campus pays approximately $1200 in fees to complete an Administrative Services Credential program. At the University of California, such fees are slightly more than twice that amount. Fees at private colleges and universities are much higher. Stanford University, for example, charges more than $10,000 per year in tuition. Little wonder that the overwhelming bulk of ASC candidates are enrolled in CSU preparation programs. These are the institutions where tuition and fee costs to students are clearly the lowest.

The only other direct costs to students are books, supplies, child care, and transportation. The outlay for books and supplies is estimated to be well under $1,000 per student. Until recently transportation costs could be substantial. For a student commuting 100 miles round trip for each class meeting, mileage costs added up quickly. Presently, however, many private colleges and California State Universities offer off-campus ASC programs. Classes meet in the home county of enrolled students in order to relieve students of time consuming and expensive long commutes.

The expense to ASC candidates enrolled in CSU administrative programs is only about $2,000 per year. Since most CSU programs, at least until recently, required but a year to complete, many people viewed this $2,000 as a small price to pay for the opportunity--however slim--to increase one's lifetime earning power by 30%.

What are the opportunity costs? What, besides a relatively small amount of money, do ASC students have to give up to complete an adminstrative preparation program? Students seeking administrative credentials generally have low opportunity costs. They do not have to forego full time employment as classroom teachers to attend managment training classes, as most administrator preparation programs offer courses in the late

afternoons, evenings, on Saturdays, and during summer vacations. An enterprising student can complete almost all preparation for the Administrative Service Credential after teaching hours during the regular school year. Under such conditions, there would be no need even to forego whatever summer employment a teacher might have to take to supplement his or her regular salary. Any employment the ASC student might have to forego would probably be the moonlighting variety and the amount of income foregone would likely not be much, especially when set against what the individual hopes will be the eventual return.

Teachers who invest in ASC training and secure an administrative position, may expect a high rate of return on their investment. Appendix II describes rate of return calculations, based upon the type of ASC training institution attended and the highest administrative position ultimately attained. Although these calculations consider the longer work year of principals and superintendents, compared to teachers, the lowest rate of return estimated is 20 percent. A teacher would need to search far and wide to find a comparable rate of return.

## F. Implications for Hiring and Inservice Training

Given both the oversupply of individuals with ASC credentials and the projected moderate turnover among serving administrators, two policy implications appear immediately. The first concerns the selection procedures for entry level administrators and the second pertains to inservice for serving administrators.

As will become evident later in this paper, virtually any classroom teacher in California can be admitted to and then complete an ASC program at some institution; entry level standards are low and very few entrants fail to complete an ASC program for academic reasons. Evidently, the gate-keeping function for entrance to the ranks of school administration occurs in school districts as entry level administrators are selected. What criteria and procedures do districts (and county offices) use in hiring new administrators? With the large current and projected pool of available administrators, the quality of school leadership added between now and 1990 will largely depend upon how these entry level selection decisions are made. While research into hiring practices is certainly appropriate, an immediate policy suggestion is already available --- establishing assessment centers.

An assessment center[7] is a technique used successfully by business and others (AT&T, IBM, U.S. Army, Eastern Airlines, Standard Oil) to select management personnel. Since 1975, the National Association of Secondary Principals has tested, validated, and implemented assessment centers for selecting school administrators. Typically six member assessment teams

observe participants perform a series of exercises that simulate the tasks involved in school administration. The assessors observe evidence of skill in the following dimensions: problem analysis, judgement, organizational ability, leadership, sensitivity, stress tolerance, written communication, and personal motivation. The potential value of assessment centers led to their inclusion in Chapter 3.15 of SB813. The development and use of assessment centers throughout the state should contribute significantly to improved selection of entry level school administrators.

The second implication of the supply and demand imbalance concerns the training and development of serving school administrators. While the average age of school administrators in California is only 46, administrators cannot retire and receive State Teachers Retirement Service benefits until age 55. Consequently, the human and material resources invested in effective administrator staff development will yield high returns. Fortunately this need has already been recognized by state-level policy makers and major initiatives have begun, including several in Chapter 3 of SB813 designed to expand and improve professional development services available to school administrators.

## G. Women in School Administration

Historically in the United States, teaching has been women's work and school administration men's work. But at least in California, this imbalance is shifting rapidly. Indeed, by the year 2000 administration may also become women's work as the proportion of women to men in administration equals or exceeds the proportion in teaching. Why is this change occuring and what implications does it hold for the quality of education in California?

In 1979-1980, 30,896 men and 87,206 women received teaching credentials in the United States[8]. Stated another way, a ratio of approximately three women for every man prepared themselves to become teachers. In contrast, during the same year, 5,780 men and 3,899 women received master's degrees in educational administration. Furthermore, 984 men received doctorates in education compared with 484 women. Figure III and Table III demonstrate this shift.

As Figure IV and Table IV indicate, school administration has been a male dominated occupation. However recently collected data on enrollments in ASC programs and on hiring patterns for administrative positions suggest swift changes[9]. The first indicator of change has been that many more women than men have been enrolling in ASC programs during the past 3 years. A telephone survey conducted in the spring of 1984 of the 44 institutions in California offering ASC credential training indicated well over half of the current ASC students were women.

Indeed, more than half the programs indicated that 70 percent of their students were women.

But how well do women succeed in obtaining entry level jobs as school administrators? It may be that men are hired preferentially for jobs such as assistant principals, elementary principals, and curriculum specialists. If so, then school administration will continue to be a male-dominated occupation regardless of how many women receive preliminary ASC credentials. Fortunately evidence suggests that women are not being systematically excluded from entry level positions. An informal survey of 20 medium to large school districts in California was conducted in April of 1984[10] with the following questions:

- How many entry level administrators have you hired in the past two years?
- How many were male?
- How many were female?

Although the sample is too small to make a convincing generalization to the entire state, 55 percent of the new administrators, chiefly curriculum specialists, secondary assistant principals, and elementary principals were female.

This added feminization of school administration portends well for the future of school leadership in California. While able women have been deserting the teaching profession in great numbers of late, and women who once chose teaching now choose other more lucrative occupations, the doors of administration have opened for increasing numbers of women. Currently, administration offers one of the few routes available in education to upwardly mobile women. Making this route more available to women may decrease the loss of qualified women to non-educational endeavors.

To support this flow of women into administration, data should be comprehensively gathered periodically on the ratio of men and women being selected for entry level administrative positions in California.

## III. PREPARATION

### A. Overview

California has forty-four colleges and universities that offer programs to prepare people for adminstrative service credentials. These institutions of higher education are not oblivious to the glut of people who already possess unused ASCs. How have the colleges and universities responded to this abundance of potential school administrators? The answer is:

badly. An estimated 3,400 new ASCs that will be granted by California colleges and universities this year. In fact, since the results of a telephone survey conducted in the spring of 1984[11] indicate increased enrollment in ASC programs, the 3,400 figure may actually be too low.

At the present time ASC credential programs are changing from one year programs to new two tiered programs. As prescribed in AB777 (Greene,1981) ASC credential candidates must now complete 36 quarter units of credit in an approved program to receive a preliminary credential, and, after obtaining an administrative job, complete an additional 36 units of training to be eligible for a permanent credential. Since teachers will still need to complete the 36 unit preliminary credential program before they become eligible for administrative positions, the addition of this second "ordination" tier will not likely improve the supply and demand imbalance. The financial and non-financial rewards of administrative training remain too high to dissuade teachers from entering ASC programs.

Generally, the requirements for the new first tier preliminary credential do not differ substantially from the old ASC credential program requirements. Most of the 44 current ASC programs will need to make only minor modifications in their present programs. On the other hand, the requirements of the second tier offer exciting and potentially substantial improvements in the quality of preparation of new administrators.

Looking beyond sheer numbers to the projected content of ASC programs, what, from the perspective of school reform and improvement, will these programs offer? It may be economically and even personally satisfying for some teachers to complete ASC programs, but do these programs sufficiently provide the skills and knowledge necessary to be an effective school manager? The answer in the past, with the exception of a limited number of exemplary programs, is an unfortunate, but unequivocal, no. Nevertheless, the new two tier ASC credential program offers at least the hope of significant improvements in the quality of preparation received by new administrators.

## B. Admission Standards for Administrative Services Credential Programs

Prospective school managers in California must obtain their training at one of the 44 post-graduate institutions offering Administrative Services Credential (ASC) programs. Private colleges or universities account for 21 of these programs. The other 23 operate on 18 CSU campuses and 5 University of California campuses.[12] Over 80% of those completing an ASC program graduate from CSU campuses. With very few exceptions, admission and completion standards for ASC programs are quite low. According to the findings of our telephone survey, ASC programs essentially admit "all comers." Fewer than one applicant in 30 is refused admission to a program. Moreover,

over 80% of students admitted eventually receive Administrative Services Credentials.

C. Administrative Services Credential Training

A principal has a different job than a teacher, a job which requires different skills and different training than teaching. A teacher spends most of his or her work day employing various strategies designed to impart knowledge to or develop the learning skills of young people. A teacher's job is complicated, to be sure, but relatively constrained within the four walls of his or her classroom. A principal must deal primarily with adults--faculty members, other staff members, parents, other administrators. He or she must be grounded in knowledge of the business of education to gain the professional respect of the faculty. Also, an effective administrator must be able to select goals and motivate fellow professionals, teachers, to pursue them.

In short, an effective principal is the successful manager of an important and sometimes not-so-small business. Most ASC programs have fallen short of the mark in training people to be effective school managers. Unlike full-time programs that train managers for the private sector, virtually all ASC programs hold classes in the evenings, late afternoons and weekends. This scheduling makes sense given that virtually all ASC students already teach or administer full-time. As a consequence, ASC candidates study on "tired time," unable to learn with the intensity of, for example, a full-time MBA student at a UC or CSU campus. Pitner [13] suggests that part-time ASC students are further limited because they do not experience the intense socialization to distinct norms that a full-time MBA or public administration student will experience. Tyack and Cummings [14] concluded that such socialization has a critical impact on subsequent managerial behavior and performance. In sum, current ASC studies must be fitted into the already busy lives of students, after work and family responsibilities. Small wonder then, that ASC training seldom requires the rigor, dedication, and high standards of many MBA, law school, and public administration programs.

The nature of administrator preparation in California is strongly influenced by the Commission on Teacher Credentialing. In the past the Commission's requirements for program approval emphasized subjects such as personnel supervision, school community relations, intergroup or human relations, curriculum supervision, and education governance.

These courses and practical experiences are consistent with the labor intensive nature and the public setting of present day schooling. In contrast to preparation programs in schools of public administration and business, California school administrator preparation programs give great attention to human

relations and public relations courses and skills. Conversely, preparation programs for other administrators, both private and public sector, give greater emphasis to technical matters, resource planning, and analytic skills. A difference in emphasis may be partially justified. Schools rely primarily on people, not technology and in such a people-oriented environment, harmonious human relations are crucial. Similarly, given the heavy concentration of government funding and government regulation for public education, a training emphasis upon public relations is also understandable. However, even giving the current emphasis its due, a better balance between human and public relations versus technical knowledge could be struck to the advantage of education. Translated practically, this would result in more courses and experiences on learning, theories of teaching, curriculum strategies, program evaluation, cost effectiveness analysis, management information systems, quantitative decision making techniques, computer use, and planning techniques being woven into educational administrator training curriculum.

Indeed the Commission on Teacher Credentialing (CTC) in cooperation with practicing school administrators, representatives of professional organizations, and college and university faculties has been moving to improve the preparation and licensing requirement for school administrators. As described in Table V, the competencies required in the preliminary credential program are weighted toward human relations but contain some elements of technical expertise. In contrast, the second tier's training methodologies and competencies offer considerable promise. For example, second tier programs will be more field intensive and will require an individualized preparation program plan for each candidate developed collaboratively between university and the employing school district. Besides utilizing an individualized clinical approach to training, the second tier will emphasize the competency domains of:

- Organizational Theory, Planning and Application
- Instructional Leadership
- Evaluation
- Professional and Staff Development
- School Law and Political Relationships
- Fiscal Management
- Management of Human and Material Resources
- Cultural and Socio-Economic Diversity[15]

According to preliminary CTC guidelines, individuals who successfully complete the second tier will be equipped to evaluate programs, staff performance, and pupil achievement; manage staff development programs; lead problem solving groups; and deploy human and material resources effectively. If institutions of higher education and cooperating school districts are successful in implementing the second tier's improved training methodologies and content, then these competencies combined with the 35 others listed by the Commission should go

far to improve the quality of school leadership in California.

How will we know in five years if the two tiered approach has been successful? The following list offers a limited number of suggestions. If the second tier is effectively implemented, then new school administrators will be able to:

- establish a school vision and develop a consensus around that vision
- analyze an observed lesson and conduct a teacher conference so that the teacher's performance improves
- use school and pupil performance data to improve instruction and curriculum
- motivate or remove poorly performing teachers
- establish or improve school based staff development programs.

D. Preparation of Business and School Leaders

How does the training for the men and women who do become California public school administrators compare with the training received by leaders in business or other public agencies where the quality of leadership is a major determinant of organizational effectiveness?

Both middle and upper level managers in California schools have spent many more years in post-graduate training than have business managers. A survey[16] of three Fortune 100 corporations with headquarters in California provided the levels of education described in Table VI among executives with comparable responsibility to school principals, assistant superintendents and superintendents (measured in terms of numbers of professionals supervised and budgets managed).

Considering 30 semester units as the equivalent of a year's post-graduate study, even lower level school managers have typically spent 2 to 3 more years in full-time academic study than have managers in other fields, see Table VII. As competition for jobs becomes ever stiffer, potential school administrators line up for more post-graduate training. With the consistent surplus of qualified candidates for both lower and upper level management jobs in education over the past 20 years, administrators have needed to train more intensively simply to hold their positions in the job queue. Regardless of the value of the additional training in terms of increasing job performance, administrators need master's degrees or doctorates simply to compete with other job seekers who already have those credentials.

One would logically expect administrative competence to be increased by the additional training received. Administrators

should be able to plan, evaluate, supervise, communicate and lead more effectively as the result of the hours spent in post-graduate classes and in completing associated class assignments. Such is not always the case. School administrators themselves voice dissatisfaction with the quality of their training--no matter what the quantity. Data provided in a summary of an assessment survey conducted by the Association of California School Administrators[17] supported the notion that principals in California believe they are not adequately prepared to be school administrators. In particular, the survey showed that the most often identified inadequacies were in the technical area of observation and evaluation of classroom behavior.

There may be no perfect training program to prepare individuals to be successful school managers. Professional literature is replete with varying theories regarding the components of a good administrator training program--including emphasis on physical well-being and positive personality traits; direct supervision of teaching ; guidance; and human relations. One theory stresses the value of successful classroom experiences, despite an apparent general agreement among school managers that teaching experience in and of itself does not adequately prepare a person to be a school principal. The report of the Assembly Education Committee Task Force[18] stated, "according to many principals, their academic training did not prepare them for their responsibilities as school administrators." A 1976 study[19] reported that principals rated their experience as principal, their teaching experience, and their teaching training as being more useful in their job than the formal administrative training they received. Elementary principals in California, in an extensive series of interviews, attributed success in their jobs to practical experience[20]. In fact, less than two percent of the principals interviewed singled out college or graduate preparation as an important determinant of their success in the role of principal. Historically then, ASC training has been loosely limited to job requirements. What does it cost institutions to provide this "somewhat useful" training?

## E. Institutional Costs

The major direct cost variables for public higher education institutions involved in school administrator preparation programs are (1) the length of time it takes the college or university to put the ASC candidate through his or her academic paces, and (2) the number of people enrolled in the program. Most preparation programs are geared toward moving people in and out with substantial speed. In terms of numbers, as we have already seen, higher education institutions have not responded to the existing surplus of credentialed school administrators by reducing enrollments. This fact loses its ability to startle once one recognizes that funding for most ASC programs is enrollment-driven. It is to schools' advantage to maximize the

number of program participants, regardless of their employability.

The lowest cost ASC programs were those requiring but a year of "full time" study and in which there are substantial numbers of students enrolled such that fixed costs are spread over a larger "production run." Programs which match this profile tended to be in the eighteen California State University campuses which offer programs leading to the Administrative Services Credential. Many students were admitted and requirements could be met in just a year of full time study. The institutional delivery costs, both direct and indirect, of such programs we estimated to be $5,000 to $10,000[21] per completed Administrative Services Credential. At the opposite end of the continuum are programs such as at Stanford and the University of California where course requirements typically necessitated two years to complete and entry was restricted to but a small number of enrollees. These programs we projected to cost the institution approximately $41,000 to $50,000 per completed administrative credential.

The state of administrator training---and its results---are captured by John Goodlad[22] in his 1983 study of California's public schools.

> "In our study of educational change and school improvement, we found most of the school principals of the participating schools lacked major skills and abilities required for effecting educational improvement. They did not know how to select problems likely to provide leverage for schoolwide improvement, how to build a long term agenda, how to assure smooth continuity of business from faculty meeting to faculty meeting, how to secure and recognize a working consensus, and on and on. Most were insecure in their relations with faculty and rarely or never visited classrooms. Some were hopelessly mired in paper work, exaggerating the magnitude of the tasks involved in part to avoid areas of work where they felt less secure."

## IV. Conclusion and Recommendation for Change

This paper offers three major conclusions:

1. there is an oversupply of trained administrators

2. this is an expensive waste as far as the state is concerned

3. ASC training has been inappropriate for many of the actual job requirements of school administrators.

This paper does not establish:

4. ASC programs are of poor quality (even if inappropriate, they may do what they do quite well)

5. school administrators are of poor quality (even if they have pursued non-rigorous, inappropriate training).

It is important that the recommendation address items 1, 2, and 3 and not 4 and 5.

The major problem facing educational administation in California is one of quality, not quantity. There is no shortage of licensed individuals minimally qualified for entry level employment. Training which is relatively low in cost to the individual, low admission and graduation standards in preparation programs and high economic returns on individual training investments are attracting larger than needed numbers of classroom teachers into administrator training. The major challenges are to limit the number of ASC candidates, or at least limit the number prepared at the public's expense, attract more able people into school administration and provide them with better preparation, and assist those already holding administrative positions in improving their job skills. The following are offered as recommendations to begin to meet these challenges:

(1) To begin to bring supply and demand into better balance, public school administrator programs should require students to pay tuition. In principle, perhaps all public higher education graduate professional training should charge tuition. Certainly students who become physicians or lawyers at public universities have received far more state resources than ASC students. However in that this paper focuses exclusively upon educational administrators, we restrict our recommendations here. An individual armed with an Administrative Service Credential may realize a high return on his or her investment. There is simply no need for the state to subsidize ASC candidates. Certainly state financial resources can be put to more critical education-related needs. Under such conditions, market forces might come into greater play. Institutions of higher education having good reputations for placing graduate administrative credential recipients would become more attractive. Presumably, their reputation would be tied to the quality of their graduates. Such success would be self reinforcing.

(2) Alternatively, the state should phase out some public training institutions. Of the 44 California colleges and universities that offer ASC programs, 23 of them operate under the auspices of the state. California's limited financial resources are spread too thinly to justify this number of state-run school administrator training programs.

The state may hold no sway over the 21 private colleges that provide ASC training, but the number of participants in these progrmas is naturally limited by the tuition cost private institutions of higher education already impose. Those numbers would be further reduced by the implementation of some of the succeeding recommendations.

(3) Program admission standards must be raised. In addition to three years of teaching, an applicant to an ASC program should be required to show evidence of completion of graduate level college or university work; supply recommendations from people with whom he or she has been professionally associated, such as teachers, school administrators, or school board members; achieve an acceptable score on the Graduate Record Exam or similar test; and qualify for admission to the college's or university's graduate division.

(4) ASC programs themselves should be academically more rigorous. The new two tier credential program seems to include at least some of these higher and more comprehensive expectations for ASC students.

(5) The State should continue to implement the two tiered ASC program and should emphasize training methodologies and curriculum in those programs that will provide new administrators with significantly improved preparation.

(6) School administrators, not their programs, should be licensed. Completion of an ASC program should not guarantee an individual that he or she will automatically receive the credential. Potential school administrators should be required to pass a post-training examination, much as a prospective lawyer must pass the bar exam or a physician who moves from general practice to a medical specialty must pass boards.

(7) Alternatively the force of the marketplace could improve ASC training by requiring institutions with ASC programs to annually disclose the proportions of their graduates selected for administrative positions. Teachers selecting ASC programs would then be knowledgeable about relative job placement rates and could make more informed decisions.

(8) The ratios of men and women enrolled in ASC programs and securing entry level administratative jobs should be periodically surveyed in order to support the admission of women into the ranks of school administration.

(9) Finally, the state should give serious consideration to funding a California Academy for Successful School Management. The Academy, which would have a branch in Northern and Southern California, would provide a multi-year training program of full-time study for selected school administrators. Subsidized by the state, the training academy would have stringent admission standards and require participants to have completed a series of successful and varied teaching assignments. This California Academy for Educational Leaders would offer stipends sufficient to support students in full-time study. In return for the state's investment, those who complete the academy's training program would be required to give four years of service in schools selected by the state on the basis of their low student achievement. Academy participants would be limited to 100, thus creating a select cadre of highly specialized, carefully trained school managers to serve as models and teachers for their peers throughout the state.

The situation for school management is not hopeless. Recognizing the problems is, of course, the first step toward providing solutions. The state has an immediate responsibility to reexamine the school management training programs its institutions provide, review its deployment of resources for these programs, and analyze the effectiveness of current school administrators. The state must then set itself on a carefully planned course of action designed to remediate the problems and effectuate successful and long-lasting solutions. Without substantial commitment from state government, school management and training will continue to be mired in ineffective programs which admit marginally qualified students. With the state's help, school administration programs can become tools for education reform and school managers can be powerful instruments to help bring about change.

APPENDIX I

## Estimating the Supply and Demand for California School Administrators

California has 44 colleges that offer administrative services credentials. These programs will graduate 17,700 new potential administrators between 1984 and 1989 based on average 1979-1982 production[23]. In fact, since several programs surveyed indicate an increase in enrollment in ASC programs, the 17,700 figure may be too low. How many of these ASC holders can expect to secure an administrative position in California? Two independent estimation procedures will be used in this regard. The first relies on an extrapolation from the Table II and on estimates of school population increases. The second applies a procedure used to estimate nationwide administrator demand. In consort these procedures bracket a range of administrator supply and demand in California thru 1989.

Between 1985 and 1990 the number of 5 to 19 year olds in California is expected to increase from 5,334,600 to 5,736,400 or 7½ percent.[24] It can be estimated that the total number of entry level administrative positions will increase by the same proportion, although the distribution will shift between elementary and secondary. Elementary enrollment can be expected to grow while secondary will dip slightly. Extrapolating the data in Table II ahead by 5 years reveals that 17.9 percent of administrators will be age 60 or over. Since the average age of retirement has been 61, a rough figure of 18 percent can be identified for the number of administrators likely to retire over the next 5 years. An additional 7 percent will be hired because of projected enrollment increases. In combination there estimates produce a yearly turnover rate of 5% or approximately 800 new hires per year.

Kuh and Zent [25] conducted a six state survey of placement offices in institutions of higher education with graduate programs in educational administration. They estimated the number of new administrative hires during the years 1975 through 1980. They reported 913 new hires with 2530 incumbents in 1980 or a ratio of 0.36 of new hires to incumbents. Their estimates may be high since response rates varied from 29% to 88% and since offices with low rates of placement would be less likely to report. Applying this proportion to the estimated 17,497 total school administrative positions in California in 1989 yields an estimate of 6,300 openings between 1985 and 1989, which translates into a yearly average turnover rate of 9 percent. In summary, we estimate that 5 to 9 percent of the total number of administrative positions will turn over annually. The administrative workforce can be projected, on average, to replace itself every twenty years. This projection is consistent with data suggesting that the modal administrator acquires his initial position about age 40 and retires at close to age 60.

## APPENDIX II

### Estimating Rates of Return on Investment in Administrative Service Credential Training.

In California, the investment to prepare to become a public school administrator offers a high rate of return. Costs are low, and, if one succeeds in obtaining even an entry level position, the payoff is reasonably high. As a consequence, many individuals seek training and join the job queue.

### SALARY INCENTIVES FOR CLASSROOM TEACHERS TO BECOME ADMINISTRATORS

Why should teachers choose to become administrators? What are the long-term financial and non-financial benefits for leaving the classroom to enter administration? California requires that one have been a classroom teacher for a minimum of three years before being eligible for an Administrative Services Credential. It is not surprising, therefore, that the overwhelming number of individuals enrolled in administrator preparation programs are currently employed as classroom teachers. If they should remain as teachers, an improbable circumstance for the most able among them, they can look forward to their earning power peaking after approximately twelve years. By this time they will have reached the top of the teacher salary schedule in most districts. At this juncture the only things to look forward to are cost of living adjustments, should they be forthcoming from the legislature, or leaving the classroom for an administrative position. Little wonder, for this reason alone, that such large numbers seek to become qualified as administrators.

Even if one falls short and is unable ever to gain an entry level public school administrative position, it does not mean that one's management preparation is wasted. Aside from, whatever, if any, psychic rewards come from going to school, academic course credits accruing from ennrollment in an Administrative Services Credential program will generally count toward higher pay as a teacher. Teacher salary schedules have a horizontal component based upon the number of academic units taken beyond the bachelor's degree. Most local districts impose few restrictions regarding the nature of these units. Graduate courses taken in administration often result in higher annual salary even if the individual never becomes an administrator. Given the low cost involved in taking administrator course, at least at public institutions, it is no wonder that teachers enroll. Through one set of lenses, they have little to lose.

If an individual is fortunate and obtains an administrative position, then the training investment earns a particularly

handsome return. Comparing the differential between a classroom teacher and the position of school principal, the increment in lifetime earning is thirty percent. If the individual overcomes the substantial odds and becomes a superintendent then the increment in lifetime earnings is in excess of sixty percent. The next section describes these incentives in more detail.

## LIFETIME EARNING PROJECTIONS

This analysis compares the estimated lifetime earnings of teachers who remain in the classroom, those who become middle managers (principals and assistant principals), and those who enter upper level management (assistant superintendents and superintendents). Second, the non-financial advantages of administration over teaching are estimated. Third, the salaries of school administrators are compared to those of managers in the public and private sectors with similar responsibilities.

Certain assumptions must be used in estimating lifetime earnings. According to State Teachers Retirement System data, for the past decade the following patterns have been the norm in California. The average age for beginning teachers is 24, while the average age for retiring teachers is 61.[26] On a typical salary schedule controlled by longevity and college units, by age 34 a teacher who began in his or her early twenties has reached a salary ceiling. For the next 30 years, his or her salary will increase only from cost-of-living adjustments and completion of additional coursework. Information supplied by the California Basic Educational Data System [27] indicates that very few teachers become administrators before their early thirties.

The earnings from age 34 to 61 were estimated for five career paths:

- teaching to age 61
- assistant principal to age 61
- principal to age 61
- principaluntilage45andthenassistant superintendent to age 61
- principal until age 45, assistant superintendent to age 54, superintendent to age 61

The listed salaries do not include medical, retirement or other fringe benefits and assume constant 1983 dollars. To the extent these benefits are excluded, the total compensation to administrators may be significantly underestimated. In order to improve their negotiating positions with teachers' unions, many districts provide sizable fringe benefits to administrators without listing the benefits on the official salary schedule.

Several important conclusions can be reached using the information in Tables VIII and IX. Teachers who become

administrators increase their lifetime earnings potential enormously, from as little as $218,000 by coming and remaining an assistant principal, to as much as $441,000 by becoming a superintendent. A teacher who becomes an assistant principal at age 34 and remains in that position until age 61, increases his/her earnings by 31%. By becoming principals, assistant superintendents and superintendents, teachers increase their earnings by 62%.

If anything, the lifetime earnings for superintendent are underestimated. The average age of superintendents in California is 48. In this income stream analysis it was assumed that one did not become a superintendent until age 55. Clearly many become superintendents in their late thirties and early 40s with consequent increases in lifetime earnings potential.

## COSTS

The costs and rates of return involved in training school administrators in California will be analyzed from four perspectives:

- student direct costs
- student opportunity costs
- rates of return for students
- institutional costs colleges that operate ASC programs

These analyses will demonstrate that a teacher's investment of time and money in training for an Administrative Services Credential will be relatively inexpensive but yield a high rate of return.

### Student Direct Costs

Teachers enrolled in administrator training programs incur five types of direct costs: tuition/fees, books, supplies, child care, and transportation. The following analysis assumes a student is enrolled in a two-stage ASC program. These new programs, prescribed by AB 777, significantly increase student direct costs over those incurred during the previous one year programs.

A student at a CSU pays approximately $1300[30] in user fees to complete an Administrative Services Credential program. At the University of California, such fees are slightly more than twice as much, $2800.31 At private colleges and universities, fees can be many times more. Stanford charges almost $10,000 per year in tuition.[2] Little wonder that the overwhelming bulk of ASC condidates are enrolled in CSU preparation programs. These are the institutions where tuition and fee costs to students are clearly the lowest.

The only other direct costs to students involve books, supplies and transportation. The outlay for books and supplies is estimated to be well under $1,000 per student. Until

recently, transportation costs could be substantial. For a student commuting 100 miles round trip for each class meeting, mileage costs added up quickly. But now many private colleges and California State Universities offer off-campus ASC programs. Classes meet in the home county of enrolled students in order to relieve the students of time consuming and expensive long commutes.

## Opportunity Costs

Students seeking administrative credentials generally have low opportunity costs. They do not have to forego full-time employment as classroom teachers to attend administration training classes. Most administrator preparation programs offer courses in the late afternoon, evening, on Saturdays, and during summer vacation periods. For an enterprising student, almost all preparation for the Administrative Service Credential could be obtained after teaching hours during the regular school year. Under such conditions, there would be no need even to forego whatever summer employment he or she typically expected to have. If a student in fact had to forego employment, it would probably be of an hourly pay variety, a second job or moonlighting situation, and the amount foregone would not likely be much. Assuming even that such sacrifice is as high as $1,000, this is insignificant compared with the subsequent return on the investment.

Table X summarizes the student estimates used in calculating rates of return on investment in two-tier ASC training. Estimates do not include the opportunity costs of foregone leisure, nor do they compensate for students who obtain a preliminary credential but do not complete the second tier of ASC training. Costs for the later individuals would be significantly lower.

## Rates of Return

Estimating rates of return on investments in capital of any kind -- land, machinery, or human -- inevitably involve predictions about the future, and, of course, predicting the future always introduces considerable uncertainty about conclusions. In order to increase the reliability of these estimates on the private rates of return for investment in ASC training, three independent estimation procedures will be used. The first technique utilizes simple present value projections; the second, an income stream analysis; and the third, a return on average daily wage. As will be evident, even the lowest of these estimates on rates of return can only be described as princely.

Table XI presents four cross tablular calculations of rate of return on personal investment. The two columns contain the lifetime income stream increments for prinicipals and superintendents. Cells contain added income for each of these positions aggregated for the administrative working life of the individual relative to remaining a teacher. The rows portray

rate of return assuming varying levels of individual investment, low cost CSU, medium cost UC, and high cost nonpublic university. The total costs to students are also listed. In each case an opportunity cost of $1,000 has been used. Since virtually all ASC students incur opportunity costs significantly below this level, the estimates for private rates of return will be low. As described in Table IX, it has been estimated that a teacher who follows a career path terminating in principalship will earn 327,000 more dollars (constant 1983) than if he/she had remained in the classroom. Similarly a career path terminating with a superintendency will return $440,995.

The standard formula for computing present values[33] is used: PV = F(t)/(1+i)+(t) Where PV = present value of investment, i = annual rate of return, t = the number of years, and F(t) equals the value of the investment in the t+(th) year. In this analysis PV represents total student costs, F(t) represents the lifetime earnings increment from Table X, and t = 27 years, ages 34 to 61.

For the second procedure we compute the average yearly increase in income for administrators over teacher, again using i = 27 and the data in Table IX. Table XII lists average yearly additional salaries by administrative position. These additional salaries become the yearly income flows used in computing rates of return on investment. Of course, these estimates are down biased because they do not account for the effects of inflation.

Using the same estimates for student direct costs as in Table X and dividing the student costs into the yearly increment yields the rate of return estimates in Table XIII. These incredibly high rates of return are certainly overestimates. In order to improve the reliability of the estimates, the following information is added. The average work year for a teacher in California is 180 days, for principal, 215 days, and for a superintendent, 225 days. Dividing average salaries from Table VIII by days worked per year yields the estimates of daily pay found in Table XIV.

The rates of return on individuals' investments in becoming a school administrator range from 40 percent in the instance of an individual attending a high-cost program and becoming a principal, all the way to 406 percent for the person who attends a low cost program and becomes a superintendent. Even though these estimates are biased on the low side because it is assumed that the administrator receives the increment in one sum at age 61, there are few financial opportunities comparable even to the lower rate of return for individual "A" attending the high cost program. One would practically have to discover a gold mine or an oil well to compete with the internal rate of return from the low-cost administrator training program.

## NOTES

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8. US, Department of Education, National Center for Educational Statistics, Earned Degrees Conferred, 1979-1980, p.118.

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10. see note 9.

11. see note 9.

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15. California, Commission on Teacher Credentialing, memo of July 28,1984 from John F. Brown, Executive Secretary, regarding update on the status of requirements for administrative service credentials.

16. These data result from May 1984 interviews with personnel managers in three large Bay Area corporations.

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20. Association of California Administrators. Special Report: Professional Development Programs. 1976-1977 Assessment Survey Summary, (Burlingame: 1977).

21. These estimates are from interviews with ASC program coordinators and are based on program budgets per student.

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24. see note 2

25. George Kuh, Marth McCarthy, and Amy Zent, "Supply and Demand of School Administrators," Educational Research Quarterly, 8 , 1983.

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28. Based on interviews with personnel officers in several Bay Area school districts.

29. see note 3.

30. California State University at San Francisco, 1984-1985

Graduate Catalog.

31. University of California, Berkeley, 1984-1985 General Catalog.

32. Stanford University, 1984-1985 Catalog.

33. Elchanon Cohn, The Economics of Education, (Cambridge, Mass.: Ballinger, 1979), p.95.

34. see note 27.

35. see note 27

36. see note 8.

37. see note 8.

38. see note 27.

39. California Commission on Teacher Credentialing, preliminary compliance document.

40. see note 16.

41. see note 27.

42. see note 27.

## FIGURES AND TABLES

### Table I

Numbers of School Administrators in California -- 1983 34

| (Position) | (Numbers in 1982-1983) |
|---|---|
| Superintendent | 672 |
| Assistant and deputy superintendent | 3,000 |
| Program/subject area administrator | 2,725 |
| Principal | 5,587 |
| Assistant principal | 4,317 |
| Other | 52 |
| Total | 16,353 |

### Figure I

Distribution of California School Administrators by Position and by Age

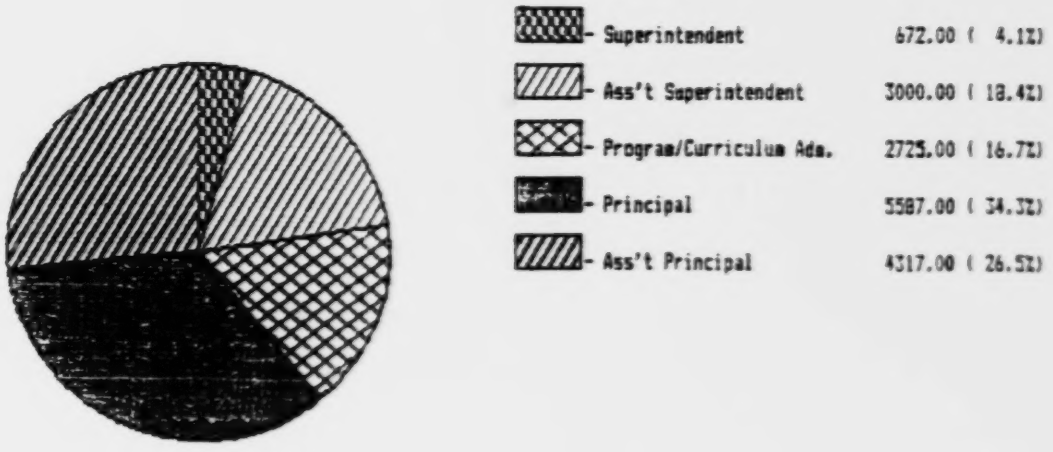
- Superintendent 672.00 ( 4.1%)
- Ass't Superintendent 3000.00 ( 18.4%)
- Program/Curriculum Ads. 2725.00 ( 16.7%)
- Principal 5587.00 ( 34.3%)
- Ass't Principal 4317.00 ( 26.5%)
TOTAL: 16301.00 (100%)



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TABLE II

Distributions of Administrators in California [35]
by Position and by Age

| Position | Average age | ...Percent of Staff in the Age Group... Under 25 | 25-34 | 35-44 | 45-54 | 55 and over |
|---|---|---|---|---|---|---|
| Superintendent | 49.1 | 0.0 | 1.9 | 21.4 | 55 | 21.7 |
| Assistant and deputy superintendent | 47.6 | 0.1 | 7.3 | 27.6 | 42.5 | 22.5 |
| Program/subject area administrator | 44.0 | 0.1 | 17.8 | 34.1 | 33.9 | 14.1 |
| Principal | 47.2 | 0.0 | 6.7 | 29.4 | 44.7 | 19.2 |
| Assistant principal | 44.1 | 0.2 | 14.1 | 39.5 | 33.5 | 13.0 |
| ALL ADMINISTRATORS | 46.1 | 0.1 | 9.8 | 32.1 | 40.1 | 17.9 |

Figure II

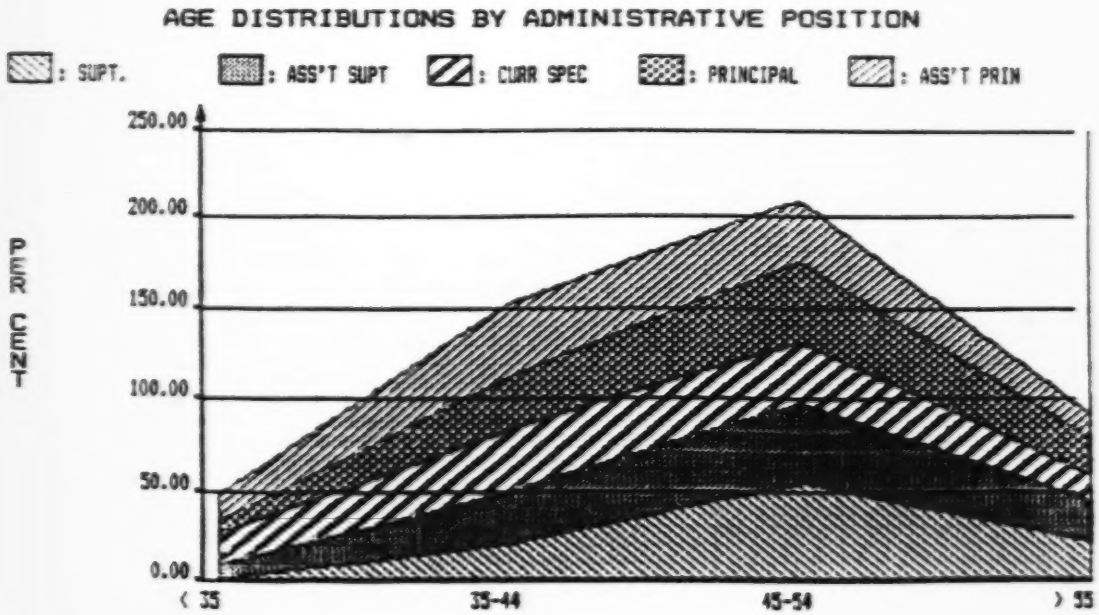




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Table III

Ratios of Women To Men Completing Different Levels of Educational Training[36]

| | Ratios of Women To Men |
|---|---|
| Bachelors in Education | 3.0 to 1 |
| Masters in Educational Administration | 0.67 to 1 |
| Doctorates in Educational Administration. | 0.49 to 1 |

Figure III

Percentages of Individuals Completing Training in Education by Levels of Training and by Sex[37]

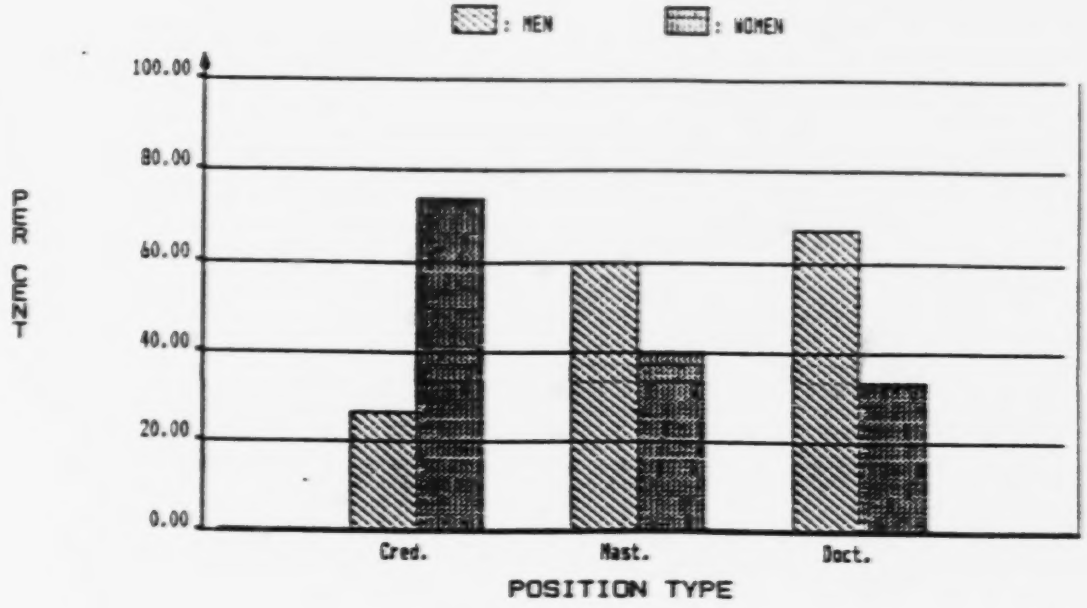




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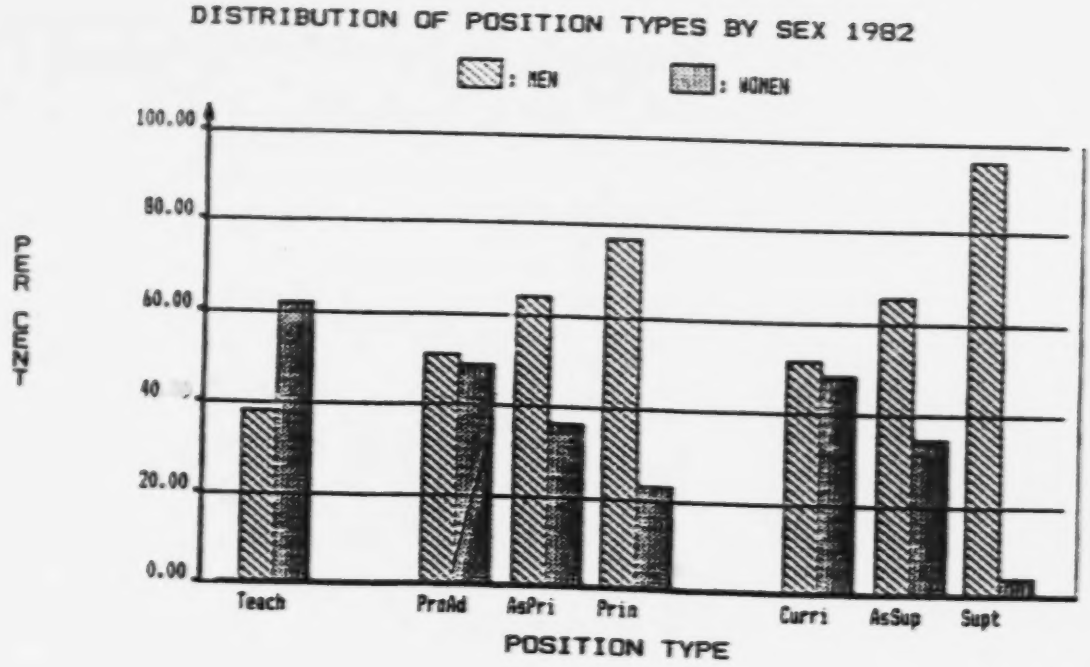
Table IV

Ratios of Women To Men in California[38] Public Schools by Position

| | |
|---|---|
| All Teachers | 1.8 to 1 |
| Principals | .34 to 1 |
| Assistant Superintendents | .49 to 1 |
| Superintendents | .06 to 1 |

Figure IV






39

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TABLE V

Competency Domains for the Preliminary ASC Credential[39]

A. Educational Leadership

B. Improvement in the Educational Program

C. Management of Educational Personnel

D. School-Community Relations

E. Legal and Financial Aspects of Public Education

F. Educational Governance and Politics

G. School Management

Table VI

Training Levels of Business Managers[40]

| LEVEL | PERCENTAGE |
|---|---|
| BA | 65 |
| MBA | 34 |
| DOCTORATE | less than 1 |

Table VII

Training Levels of School Managers[41]

| MANAGEMENT LEVEL | %BA | %MA | %ABD OR DOCTORATE |
|---|---|---|---|
| Principal | 8 | 20 | 72 |
| Ass't superintendent | 7 | 14 | 79 |
| Superintendent | 7 | 10 | 83 |

## Table VIII

## Projections of California School Administrator Salaries[42] by Career Path

...AGE...

| | Teacher | Ass't Principal | Principal | Prin. to Ass't Supt. | Principal to Supt. |
|---|---|---|---|---|---|
| 34 | 19768 | 33122 | 37033 | 37033 | 37033 |
| 35 | 24324 | 33122 | 37033 | 37033 | 37033 |
| 36 | 24324 | 33122 | 37033 | 37033 | 37033 |
| 37 | 24324 | 33122 | 37033 | 37033 | 37033 |
| 38 | 24324 | 33122 | 37033 | 37033 | 37033 |
| 39 | 24324 | 33122 | 37033 | 37033 | 37033 |
| 40 | 24324 | 33122 | 37033 | 37033 | 37033 |
| 41 | 24324 | 33122 | 37033 | 37033 | 37033 |
| 42 | 24324 | 33122 | 37033 | 37033 | 37033 |
| 43 | 24324 | 33122 | 37033 | 37033 | 37033 |
| 44 | 24324 | 33122 | 37033 | 37033 | 37033 |
| 45 | 25950 | 33122 | 37033 | 38790 | 38790 |
| 46 | 25950 | 33122 | 37033 | 38790 | 38790 |
| 47 | 25950 | 33122 | 37033 | 38790 | 38790 |
| 48 | 25950 | 33122 | 37033 | 38790 | 38790 |
| 49 | 25950 | 33122 | 37033 | 38790 | 38790 |
| 50 | 25950 | 33122 | 37033 | 38790 | 38790 |
| 51 | 25950 | 33122 | 37033 | 38790 | 46410 |
| 52 | 25950 | 33122 | 37033 | 38790 | 46410 |
| 53 | 25950 | 33122 | 37033 | 38790 | 46410 |
| 54 | 25950 | 33122 | 37033 | 38790 | 46410 |
| 55 | 26730 | 33122 | 37033 | 38790 | 46410 |
| 56 | 26730 | 33122 | 37033 | 38790 | 46410 |
| 57 | 26730 | 33122 | 37033 | 38790 | 46410 |
| 58 | 26730 | 33122 | 37033 | 38790 | 46410 |
| 59 | 26730 | 33122 | 37033 | 38790 | 46410 |
| 60 | 26730 | 33122 | 37033 | 38790 | 46410 |
| 61 | 26730 | 33122 | 37033 | 38790 | 46410 |
| | TOTAL | TOTAL | TOTAL | TOTAL | TOTAL |
| | 709618 | 927416 | 1036924 | 1066793 | 1150613 |
| | | C-B | D-B | E-B | F-B |
| | | 217798 | 327306 | 357175 | 440995 |
| | | | D-C | E-C | F-C |
| | | | 109508 | 139377 | 223197 |
| | | | | E-D | F-D |
| | | | | 29869 | 113689 |
| | | | | | F-E |
| | | | | | 83820 |

Table IX

Salary Gains in Dollars from Age 34 to Age 61
by Administrative Position

| | Teacher | Assistant Principal | Principal | Assistant Superint. | Superint. |
|---|---|---|---|---|---|
| Teacher | 0 | 218,000 | 327,000 | 357,000 | 440,995 |
| Assistant Principal | | 0 | 109,508 | 138,377 | 223,197 |
| Principal | | | 0 | 30,000 | 113,689 |
| Assistant Superintendent | | | | 0 | 84,000 |

TABLE X

Estimated ASC Student Borne Costs
by Training Institution

| Type of Institution | Total Cost to Student (opportunity costs + direct costs) |
|---|---|
| CSU Campus | $3200 |
| UC Campus | $4800 |
| Private College or University | $14,000 |

Table XI

Estimated Rates of Return by Administrative Position
and by Training Institution

| Type of Institution | Student Cost | Principal's Increment | Superintendent's Increment | Rate of Return (Prin.) | (Supt.) |
|---|---|---|---|---|---|
| CSU | 3,200 | 327,000 | 441,000 | 19 | 20 |
| UC | 4,800 | 327,000 | 441,000 | 17 | 18 |
| PRIVATE | 14,000 | 327,000 | 441,000 | 12 | 14 |

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Table XII

Estimated Yearly Additional Salary Compared to Teachers by Administrative Position

| Position | Yearly Additional Salary |
|---|---|
| Assistant principal | $ 8,100 |
| Principal | $12,100 |
| Assistant Superintendent | $13,200 |
| Superintendent | $16,300 |

TABLE XIII

Estimated Rates of Return by Administrative Position and by Training Institution

| Type of Institution | Student Cost | Rate of Return Prin. | Rate of Return Supt. |
|---|---|---|---|
| CSU | $3200 | 378% | 509% |
| UC | $4800 | 252% | 339% |
| PRIVATE | $14000 | 86% | 116% |

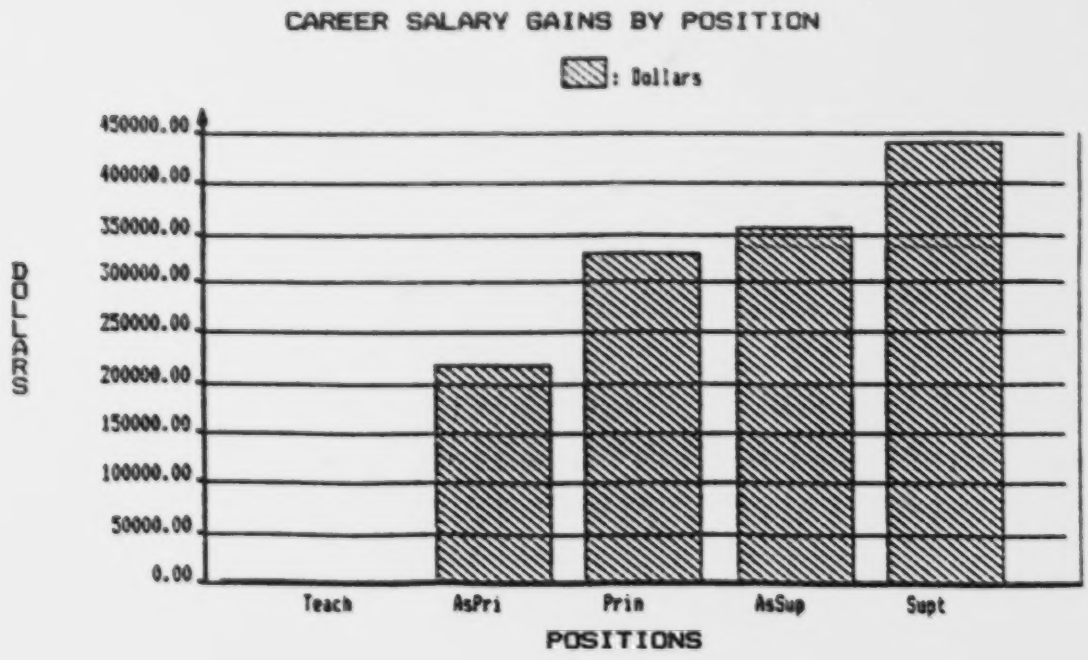




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TABLE XIV

Increases in Daily Rates of Pay by Administrative Position and by Training Institution

| Position | Daily Rate of Pay |
|---|---|
| Teacher | $148.50 |
| Principal | $174.70 |
| Superintendent | $206.30 |

| Inst. | Principal's Daily Investment | Superintendent's Daily Investment |
|---|---|---|
| CSU | 14.88 | 14.22 |
| UC | 22.32 | 21.33 |
| Private | 65.11 | 62.22 |

| Inst. | Increase Principal | Increase Supt. | Return Prin | Return Supt. |
|---|---|---|---|---|
| CSU | $26.20 | $57.80 | 176% | 406% |
| UC | $26.20 | $57.80 | 117% | 270% |
| PRIVATE | $26.20 | $57.80 | 40% | 92%] |